REMARKS

In the specification, paragraph numbers and headings have been introduced, to comply the specification with standard US practice and to facilitate future amendment.

In the claims, multiple dependencies have been removed by distributing the limitations.

The above claims have also been amended to correspond them more closely to United States claiming practice, namely, by removing reference numerals, and by clarifying antecedent basis issues. In this manner, they should be in condition for allowance. These amendments to the claims are fully supported by the literal translation into English of the specification as filed in Germany, and they do not introduce new subject matter.

The claims as amended are incorporated into the substitute specification which is attached hereto.

Respectfully submitted,

Stephen L. Grant
Reg. No. 33,390
Hahn Loeser & Parks LLP
1225 W. Market St.
Akron, OH 44313
330-864-5550
Fax 330-864-7986
Email: slgrant@hahnlaw.com
Customer No. 021324

an evaluation unit that [(18; 36) which] is connected to the sensor arrangement [(12, 14; 32, 34)] and that forms [adapted to form] a variation signal which corresponds to a [the] time variation of the radiation detected by the radiation sensor arrangement,

wherein [characterised in that] the detection device further comprises a means for individualizing that is [includes individualising means (16, 18.1; 26, 18.1; 32.1, 36.1; 44, 36.1) which are] connected to the evaluation unit [(18; 36)] and that obtains [adapted to obtain] information individualizing the [individualising an] object or [a] person, and that [which] is connected to a store that stores [(20; 38) which is adapted to store] at least a portion of the variation signal and the information individualizing [individualising] the object or the person as a characteristic parameter in association with the variation signal, and

wherein [that] the detection device further comprises a means for determining a parameter that is [includes parameter-determining means (16, 18.1) which are] connected to the evaluation unit [(18; 36)] and that delivers [are adapted to deliver] an additional signal, and

wherein [that] the evaluation unit forms [(18; 36) is adapted to form] the characteristic parameter in dependence on the additional signal,

wherein the parameter-determining means comprises [(16, 18.1) include] a radiation source [(16)] for radiation which can be detected by the sensor arrangement [(12, 14; 32, 34)] or alternatively or additionally to the radiation source comprises [(16) include] an additional sensor [(26)] for detecting a person-individual signal.

2. (amended) The [A] detection device of claim 1, wherein [(10; 30) as set forth in claim 1 characterised in that] the individualising means forms [(16, 18.1; 26, 18.1; 32.1, 36.1; 44, 36.1) are adapted to form] the characteristic parameter from the morphology of the variation signal.

3. (amended) The [A] detection device of claim 2, wherein [(10; 30) as set forth in claim 1 or claim 2 characterised in that] the radiation source [(16)] is an infrared light source which preferably emits radiation in the wavelength range of greater than 1400 nm.

4. (amended) The [A] detection device of claim 3, wherein [(10; 30) as set forth in one of claims 1 through 3 characterised in that] the evaluation unit [(18; 36)] is connected to the radiation source [(16)] and the sensor arrangement and determines, [(12, 14; 32, 34) and is adapted to determine] as an additional signal, the transit time of a signal which is emitted by

the radiation source [(16)] and reflected by the [an] object or [a] person and received by the sensor arrangement [(12, 14; 32, 34)].

5. (amended) The [A] detection device of claim 4, wherein (10; 30) as set forth in one of claims 1 through 4 characterised in that] the evaluation unit [(18; 36)] is connected to the radiation source [(16)] and the sensor arrangement [(12, 14; 32, 34)] and determines [is adapted to determine] a degree of reflection as an additional signal.

6. (amended) The [A] detection device of claim 5, wherein [(10; 30) as set forth in one of claims 1 through 5 characterised in that] the radiation source emits [(16) is adapted to emit] a coded signal and wherein [that] the evaluation unit determines [(18; 36) is adapted to determine] the proportion of the coded signal in the radiation received by the sensor arrangement [(12, 14; 32, 34)].

7. (amended) The [A] detection device of claim 6, wherein [(10; 30) as set forth in claim 6 characterised in that] the evaluation unit forms [(18; 36) is adapted to form] a degree of reflection from the ratio of the intensity of the proportion of the coded signal in the radiation received by the sensor arrangement [(12, 14; 32, 34)] to the intensity of the radiation emitted by the radiation source [(16)].

8. (amended) The [A] detection device of claim 7, wherein [(10; 30) as set forth in one of claims 1 through 7 characterised in that] the coded signal is a periodic signal and wherein [that] the evaluation unit determines [(18; 36) is adapted to determine] the transit time of a reflected signal in dependence on the phase relationship between a coded signal received by the sensor arrangement [(12, 14; 32, 34)] and a coded signal emitted by the radiation source [(16)].

9. (amended) The [A] detection device of claim 8, wherein [(10; 30) as set forth in one of claims 1 through 8 characterised in that] the sensor arrangement comprises [(12, 14; 32, 34) includes] at least two sensor elements and wherein [that] the evaluation unit forms [(18; 36) is adapted to form] at least two variation signals for different sensor elements.

10. (amended) The [A] detection device of claim 9, wherein [(10; 30) as set forth in one of claims 1 through 9 characterised in that] the evaluation unit compares [(18; 36) is adapted

to compare together] portions of one or more variation signals which were recorded at the same time as each other or in time-displaced relationship.

11. (amended) The [A] detection device of claim 10, wherein [(10; 30) as set forth in claim 10 characterised in that] the evaluation unit forms [(18; 36) is adapted to form] a correlation coefficient by comparing [as the result of comparison of] the variation signal portions.

12. (amended) The [A] detection device of claim 11, wherein [(10; 30) as set forth in claim 10 or claim 11 characterised in that] the evaluation unit implements [(18; 36) is adapted to implement] a plurality of times comparison of signal portions originating from different sensor elements, in such a way that the signal portions for each comparison are shifted in time relative to each other by different time differences, and wherein [that] a transit time signal is formed, which corresponds to that time displacement which affords the greatest similarity or best correlation of the signal portions being compared.

13. (amended) The [A] detection device of claim 12, wherein [(10; 30) as set forth in claim 12 characterised in that] the evaluation unit forms [(18; 36) is adapted to form] a speed signal from the transit time signal and from a predeterminable spacing of those sensor elements at which the signal portions used for forming the transit time signal have their origin.

14. (amended) The [A] detection device of claim 13, wherein [(10; 30) as set forth in one of claims 1 through 13 characterised in that] a plurality of sensor elements are arranged matrix-like and wherein [that] the evaluation unit compares [(18; 36) is adapted to compare] signal portions originating from different sensor elements in mutually time-displaced relationship and derives [to derive] a direction signal from the signal portion comparison operation, in such a way that a direction vector results from the spatial arrangement of those sensor elements which are associated with the signal portions of greatest similarity.

15. (amended) The [A] detection device of claim 14, wherein [(10; 30) as set forth in one of claims 1 through 14 characterised in that] the evaluation unit forms [(18; 36) is adapted to form] at least one parameter which describes a signal portion and stores [to store] said parameter in the store [(20; 38)].

16. (amended) The [A] detection device of claim 15, wherein [(10; 30) as set forth in claim 15 characterised in that] the evaluation unit [(18; 36)] and the store [(20; 38)] are so connected and adapted that a signal portion and at least one parameter describing said signal portion can be stored in association with each other in the store [(20; 38)].

17. (amended) The [A] detection device of claim 16, wherein [(10; 30) as set forth in claim 15 or claim 16 characterised in that] the evaluation unit detects [(18; 36) is adapted to detect] the greatest amplitude of a signal portion as the parameter describing the signal portion and stores [to store] same in the store [(20; 38)].

18. (amended) The [A] detection device of claim 17, wherein [(10; 30) as set forth in one of claims 1 through 17 characterised in that] the additional sensor detects [(26) is adapted to detect] hair color and delivers [to deliver] an additional signal which is dependent on hair color.

19. (amended) The [A] detection device of claim 17, wherein [(10; 30) as set forth in one of claims 1 through 17 characterised in that] the additional sensor [(26)] is [in the form of] a microphone for detecting an acoustic signal [such as for example heart sounds] and delivering an additional signal which is dependent on the acoustic signal.

20. (amended) The [A] detection device of claim 17, wherein [(10; 30) as set forth in one of claims 1 through 17 characterised in that] the additional sensor detects [(26) is adapted to detect] a scent signal and delivers [to deliver] an additional signal which is dependent on the scent signal.

21. (amended) A [counting] device for counting moving persons or objects , wherein [characterised in that] the counting device [(22, 40)] is connected to a detection device as set forth in claim 17 [one of claims 1 through 20].

Please enter the following new claims:

22. (new) The detection device of claim 1, wherein the radiation source is an infrared light source which preferably emits radiation in the wavelength range of greater than 1400 nm.

23. (new) The detection device of claim 1, wherein the evaluation unit is connected to the radiation source and the sensor arrangement and determines, as an additional signal, the transit time of a signal which is emitted by the radiation source and reflected by the object or person and received by the sensor arrangement.

24. (new) The detection device of claim 2, wherein the evaluation unit is connected to the radiation source and the sensor arrangement and determines, as an additional signal, the transit time of a signal which is emitted by the radiation source and reflected by the object or person and received by the sensor arrangement.

25. (new) The detection device of claim 1, wherein the evaluation unit is connected to the radiation source and the sensor arrangement and determines a degree of reflection as an additional signal.

26. (new) The detection device of claim 24, wherein the evaluation unit is connected to the radiation source and the sensor arrangement and determines a degree of reflection as an additional signal.

27. (new) The detection device of claim 1, wherein the radiation source emits a coded signal and wherein the evaluation unit determines the proportion of the coded signal in the radiation received by the sensor arrangement.

28. (new) The detection device of claim 26, wherein the radiation source emits a coded signal and wherein the evaluation unit determines the proportion of the coded signal in the radiation received by the sensor arrangement.

29. (new) The detection device of claim 27, wherein the evaluation unit forms a degree of reflection from the ratio of the intensity of the proportion of the coded signal in the radiation received by the sensor arrangement to the intensity of the radiation emitted by the radiation source.

30. (new) The detection device of claim 28, wherein the evaluation unit forms a degree of reflection from the ratio of the intensity of the proportion of the coded signal in the

radiation received by the sensor arrangement to the intensity of the radiation emitted by the radiation source.

31. (new) The detection device of claim 29, wherein the coded signal is a periodic signal and wherein the evaluation unit determines the transit time of a reflected signal in dependence on the phase relationship between a coded signal received by the sensor arrangement and a coded signal emitted by the radiation source.

32. (new) The detection device of claim 30, wherein the coded signal is a periodic signal and wherein the evaluation unit determines the transit time of a reflected signal in dependence on the phase relationship between a coded signal received by the sensor arrangement and a coded signal emitted by the radiation source.

33. (new) The detection device of claim 1, wherein the sensor arrangement comprises at least two sensor elements and wherein the evaluation unit forms at least two variation signals for different sensor elements.

34. (new) The detection device of claim 31, wherein the sensor arrangement comprises at least two sensor elements and wherein the evaluation unit forms at least two variation signals for different sensor elements.

35. (new) The detection device of claim 32, wherein the sensor arrangement comprises at least two sensor elements and wherein the evaluation unit forms at least two variation signals for different sensor elements.

36. (new) The detection device of claim 1, wherein the evaluation unit compares portions of one or more variation signals which were recorded at the same time as each other or in time-displaced relationship.

37. (new) The detection device of claim 34, wherein the sensor arrangement comprises at least two sensor elements and wherein the evaluation unit forms at least two variation signals for different sensor elements.

38. (new) The detection device of claim 35, wherein the sensor arrangement comprises at least two sensor elements and wherein the evaluation unit forms at least two variation signals for different sensor elements.

39. (new) The detection device of claim 36, wherein the evaluation unit forms a correlation coefficient by comparing the variation signal portions.

40. (new) The detection device of claim 37, wherein the evaluation unit forms a correlation coefficient by comparing the variation signal portions.

41. (new) The detection device of claim 38, wherein the evaluation unit forms a correlation coefficient by comparing the variation signal portions.

42. (new) The detection device of claim 39, wherein the evaluation unit implements a plurality of times comparison of signal portions originating from different sensor elements, in such a way that the signal portions for each comparison are shifted in time relative to each other by different time differences, and wherein a transit time signal is formed, which corresponds to that time displacement which affords the greatest similarity or best correlation of the signal portions being compared.

43. (new) The detection device of claim 42, wherein the evaluation unit forms a speed signal from the transit time signal and from a predeterminable spacing of those sensor elements at which the signal portions used for forming the transit time signal have their origin.

44. (amended) The detection device of claim 1, wherein a plurality of sensor elements are arranged matrix-like and wherein the evaluation unit compares signal portions originating from different sensor elements in mutually time-displaced relationship and derives a direction signal from the signal portion comparison operation, in such a way that a direction vector results from the spatial arrangement of those sensor elements which are associated with the signal portions of greatest similarity.

45. (new) The detection device of claim 1, wherein the evaluation unit forms at least one parameter which describes a signal portion and stores said parameter in the store.

46. (new) The detection device of claim 45, wherein the evaluation unit and the store are so connected and adapted that a signal portion and at least one parameter describing said signal portion can be stored in association with each other in the store.

47. (new) The detection device of claim 46, wherein the evaluation unit detects the greatest amplitude of a signal portion as the parameter describing the signal portion and stores same in the store.

48. (new) The detection device of claim 47, wherein the additional sensor detects hair color and delivers an additional signal which is dependent on hair color.

49. (new) The detection device of claim 1, wherein the additional sensor detects hair color and delivers an additional signal which is dependent on hair color.

50. (new) The detection device of claim 47, wherein the additional sensor is a microphone for detecting an acoustic signal and delivering an additional signal which is dependent on the acoustic signal.

51. (new) The detection device of claim 1, wherein the additional sensor is a microphone for detecting an acoustic signal and delivering an additional signal which is dependent on the acoustic signal.

52. (new) The detection device of claim 47, wherein the additional sensor detects a scent signal and delivers an additional signal which is dependent on the scent signal.

53. (new) The detection device of claim 1, wherein the additional sensor detects a scent signal and delivers an additional signal which is dependent on the scent signal.